


DNA base sequencer.

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Abstract

The improved DNA base sequencer comprises a flat plate type gel electrophoretic means that has a multiple of tracks for electrophoresing DNA fragments and which is held in a vertical position, a light exciting laser light applying means that applies laser light to the respective tracks in said electrophoretic means from one lateral side thereof in such a way that it crosses said tracks at right angles, and a fluorescence detecting means that detects the fluorescence as generated from the DNA fragments illuminated with the laser light and which converts the detected fluorescence to an electric signal, and it is characterized in that the fluorescence detecting means comprises an index-distributed lens array, a filter and a solid-state imaging device such as a CCD line sensor. This apparatus uses light-receiving optics that does not include a large and expensive optical device such as an image intensifier and which yet is capable of efficient fluorescence detection without "smiling" and other adverse effects. 

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